

REMARKS

Claims 1-22 are pending in the above-identified application. Some of the claims have been amended in order to insert minor formal changes.

Issues under 35 USC 103(a)

Claims 1-4, 8-16 and 19-22 have been rejected under 35 USC 103(a) as being unpatentable over Tsukamoto '985 (JP 2000-143985) in view of Bertram '244 (US 4,162,244).

Claims 5-7, 17 and 18 have been rejected under 35 USC 103(a) as being unpatentable over Tsukamoto '985 in view of Bertram '244, and further in view of Hedaya '492 (US 4,208,492).

The above-noted rejections are traversed based on the following reasons.

Present Invention and Its Advantages

The present invention is directed to a black composition which includes a titanium nitride oxide component, and which satisfies Equations (1)-(4), as recited in claim 1, for example. Significantly, in Equation (3) $R_1 > 0.70$, and in Equation (4) $0.85 < R_2 < 1.80$. In this regard, it is noted as described at page 8, line 25 to page 9, line 19 that if both Equations (3) and (4) are satisfied, the result is a black composition which exhibits advantageously high optical density (OD) and high adhesion properties. Note further that this is evident from a review of the comparative test evidence, including the descriptions of Examples 1-3 at pages 24-27 of the specification, as well as the description of Comparative Examples 1 and 2 at pages 28-29 of the specification. In this regard, it is submitted that Examples 1-3 (present invention) exhibit advantageously improved properties with respect to high OD and high adhesiveness when compared to Comparative Examples 1 and 2 wherein Equations (3) and (4) fail to be satisfied. It is additionally noted that the R_1 value employed in Comparative Examples 1 and 2 appears to satisfy the equation mentioned in Tsukamoto '985 discussed in more detail below.

Distinctions over Cited References

Tsukamoto '985 discloses a black coating composition which includes a titanium nitride oxide component and wherein the intensity ratio R satisfies the equation $R = I_3 / \{I_3 + 1.8(I_1 + 1.8I_2)\}$ of ≥ 0.24 . Tsukamoto '985 also includes Figure 1 which shows I_1 and I_2 values for an example of the black composition therein. It appears from a review of Figure 1 that the value of I_2/I_1 is about 0.6.

Tsukamoto '985 fails to disclose or suggest selecting an appropriate titanium nitride oxide component in order to satisfy Equations (3) and (4) for the black composition recited in the present claims such as in claim 1. Tsukamoto '985 fails to disclose a basis for one skilled in the art to select appropriate components in order to satisfy Equations (3) and (4) so as to obtain the black composition of the present invention. Tsukamoto '985 further fails to recognize the advantageously improved high OD and high adhesion properties achieved by the black composition of the present invention as evidenced by the comparative test results discussed above in connection with Examples 1-3 (present invention) and Comparative Examples 1 and 2 as described in the present specification. Therefore, significant patentable distinctions exist between the present invention and Tsukamoto '985, such that this basis for the above-noted rejections fails. Even if Tsukamoto '985 is properly cited as a basis for asserting prima facie obviousness, such obviousness has been rebutted by the evidence of unexpected advantageous properties described in the present specification. Therefore, it is requested that the above-noted rejections be withdrawn.

Both Bertram '244 and Hedaya '492 fail to disclose or suggest the required properties based on Equations (1)-(4) as recited in the present claims. Both of these references also fail to make up for the deficiencies of Tsukamoto '985 as discussed above. Both Bertram '244 and Hedaya '492 further fail to recognize the unexpected advantageous properties achieved by the present invention as evidenced by the comparative test results discussed above. Consequently, significant patentable distinctions exist between the present claims and both of Bertram '244 and Hedaya '492, even if these references are hypothetically combined with Tsukamoto '985.

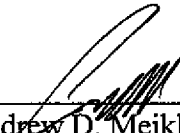
It is submitted for the reasons above that the present claims define patentable subject matter such that this application should now be placed in condition for allowance.

If any questions arise in the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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